Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claims 4, 5, 7, 9-11, 16, 21, and 22 and add new claims 23-30 as follows:

1. (canceled)

2. (previously presented): The system as in claim 21 further comprising:

a far-end noise level estimator which receives the far-end signal and generates a far-end noise level estimate based on the far-end signal; and

wherein the first noise adaptive compander further comprises an expander gain control unit for adaptively expanding the far-end signal, whereby the first noise adaptive compander further operates to adjust the amplification of low level far-end noise based on the far-end noise level estimate.

3. (previously presented): The system as in claim 21 wherein the first noise adaptive compander further operates to vary the far-end signal compression range based on a total gain derived from the near-end noise level estimate and a far-end speech level of the far-end signal.

4. (currently amended): The system as in claim 21 wherein the first noise adaptive compander further comprises:

a noise level threshold value~~; and~~ wherein the ~~a~~ noise adaptive gain controller (NGC) ~~gain unit adapted to vary a far-end signal~~ further operates to adjust the noise adaptive gain based on a ratio of the near-end noise level estimate and the noise level threshold value.

5. (currently amended): The system as in claim 21 wherein the first noise adaptive compander further comprises:

a noise level threshold value; ~~and~~ wherein the ~~a~~ noise adaptive gain controller (NGC) ~~gain unit adapted~~ further operates to vary a far-end signal gain based on a ratio of the near-end noise level estimate and the noise level threshold value, wherein the far-end signal gain is between a minimum gain and a maximum gain.

6. (previously presented): The system as in claim 21 further comprising:

a far-end noise level estimator receiving the far-end signal and generating a far-end noise level estimate based on the far-end signal; and

a second noise adaptive compander comprising:

a first input for receiving the near-end signal;

a second input for receiving the far-end noise level estimate;

a first output for providing a far-end output signal; and

a compressor gain control unit, wherein the second noise adaptive compander receives the near-end signal at the first input and receives the far-end noise level estimate at the second input, the compressor gain control unit adaptively adjusting a near-end signal compression range based on the far-end noise level estimate to adaptively compress the near-end signal to compensate for noise, whereby the second noise-adaptive compander operates to adjustably amplify the near-end signal based upon the far-end noise level estimate to produce the far-end output signal at the first output.

7. (currently amended): The system as in claim 6 wherein the second noise adaptive compander further comprises an expander gain control unit for adaptively expanding the near-end signal, and further operates to adjust the amplification of low-levels of the near-end ~~noise~~ signal based on the near-end noise level estimate.

8. (previously presented): The system as in claim 6 wherein the second noise adaptive compander further operates to vary the near-end signal compression range based on a total gain derived from the far-end noise level estimate and a near-end speech level of the near-end signal.

9. (currently amended): The system as in claim 6 wherein the second noise adaptive compander further comprises:

a noise level threshold value; and

a noise adaptive gain controller (NGC) ~~gain unit~~ adapted to vary a near-end signal gain based on a ratio of the far-end noise level estimate and the noise level threshold value.

10. (currently amended): The system as in claim 6 wherein the second noise adaptive compander further comprises:

a noise level threshold value; and

a noise adaptive gain controller (NGC) ~~gain unit~~ adapted to vary a near-end signal gain based on a ratio of the far-end noise level estimate and the noise level threshold value, wherein the near-end signal gain is between a minimum gain and a maximum gain.

11. (currently amended): A method of compensating for noise comprising:

receiving a near-end noise level estimate of a near-end signal in a compander;

receiving a far-end signal in the compander, the far-end signal to be adaptively amplified to compensate for noise;

setting a noise sensitivity coefficient to a variable amount to account for the near-end noise level estimate having an imprecise representation of the near-end noise;

generating a noise adaptive gain in a noise adaptive gain controller, the noise adaptive gain a function of the near-end noise level estimate and the noise sensitivity coefficient;

~~adjusting a~~amplifying the far-end signal ~~compression range of the compander~~ based on the near-end noise level estimate and the noise sensitivity coefficient.~~; and~~

~~amplifying a far-end signal in the far-end signal compression range.~~

12. (previously presented): The method as in claim 11 further comprising:

receiving a far-end noise level estimate of the far-end signal;

adjusting a far-end signal expansion range of the compander based on the far-end noise level estimate; and

varying the amplification of low level far-end noise in the far-end signal expansion range based on the far-end noise level estimate.

13. (previously presented): The method as in claim 11 further comprising varying the far-end signal compression range based on a total gain derived from the near-end noise level estimate and a far-end speech level of the far-end signal.

14. (previously presented): The method as in claim 11 further comprising:

setting a first noise threshold value; and

varying a far-end signal gain based on the near-end noise level estimate and the first noise level threshold value.

15. (previously presented): The method as in claim 11 further comprising:

setting a first noise threshold value; and

varying a far-end signal gain based on the near-end noise level estimate and the first noise level threshold value, wherein the far-end signal gain is between a minimum gain and a maximum gain.

16. (currently amended): The method as in claim 11 further comprising:

receiving a far-end noise level estimate of a far-end signal in ~~the~~ a second compander;

receiving the near-end signal in the second compander, the near-end signal to be noise adaptively amplified to compensate for noise;

adjusting a near-end signal compression range of the second compander based on the far-end noise level estimate; and

amplifying ~~a~~ the near end signal in the near-end signal compression range.

17. (previously presented): The method as in claim 16 further comprising:

adjusting a near-end signal expansion range of the compander based on the near-end noise level estimate; and

varying the amplification of low-level near-end noise in the near-end signal expansion range based on the near-end noise level estimate.

18. (previously presented): The method as in claim 16 further comprising varying the near-end signal compression range based on a total gain derived from the far-end noise level estimate and near-end speech level of the near-end signal.

19. (previously presented): The method as in claim 16 further comprising:

setting a second noise threshold value; and

varying a near-end signal gain based on the far-end noise level estimate and the second noise level threshold value.

20. (previously presented): The method as in claim 16 further comprising:

setting a second noise threshold value; and

varying a near-end signal gain based on the far-end noise level estimate and the second noise level threshold, wherein the near-end signal gain is between a minimum gain and a maximum gain.

21. (currently amended): A system for noise compensation comprising:

a near-end noise level estimator receiving a near-end signal and generating a near-end noise level estimate based on the near-end signal; and

a first noise adaptive compander comprising:

a first input for receiving a far-end signal;

a second input for receiving the near-end noise level estimate;

a first output for producing a near-end noise compensated output signal; and

a noise adaptive gain controller for generating a noise adaptive gain G_N that is a function of the near-end noise level estimate and a noise sensitivity coefficient, the noise sensitivity coefficient is set to a variable value to account for variability in the near-end noise level estimate resulting from imprecise measurement of the near-end noise, ~~a compressor gain control unit, wherein~~ whereby the first noise adaptive compander ~~receives~~ receiving the far-end signal at the first input and ~~receives~~ receiving the near-end noise level estimate at the second input, ~~the compressor gain control unit adaptively adjusts a far-end signal compression range based on the near-end noise level estimate to adaptively compress the far-end signal to compensate for noise, whereby~~ the first noise-adaptive compander ~~operates~~ operating to adjustably amplify the far-end signal based upon the noise adaptive gain G_N ~~near-end noise level estimate~~ to produce the near-end noise compensated output signal at the first output.

22. (currently amended): A system for noise compensation comprising:

a near-end noise level estimator receiving a near-end signal and generating a near-end noise level estimate based on the near-end signal; and

a first noise adaptive compander comprising:

a first input for receiving a far-end signal;

a second input for receiving the near-end noise level estimate;

a first output for producing ~~a~~an ~~near-end noise compensated~~ output signal; and

a noise adaptive gain controller for generating a noise adaptive gain G_N that is a function of the near-end noise level estimate and a noise sensitivity coefficient, the noise

sensitivity coefficient is set to a variable value to account for variability in the near-end noise level estimate resulting from imprecise measurement of the near-end noise, ~~a compressor gain control unit, wherein~~ the first noise adaptive compander ~~receives~~ receiving the far-end signal at the first input and ~~receives~~ receiving the near-end noise level estimate at the second input, ~~the compressor gain control unit adaptively adjusts the gain applied to a far-end signal in a compression range based on the near-end noise level estimate to adaptively compress the far-end signal to compensate for noise, whereby~~ the first noise-adaptive compander ~~operates~~ operating to ~~adjustably amplify~~apply the noise adaptive gain G_N to the far-end signal ~~based upon the near-end noise level estimate to produce~~to compensate the output signal at the first output for near end noise. ~~the near-end noise compensated output signal at the first output.~~

23. (new): The system of claim 21 wherein the near-end signal comprises an information signal and a noise signal, the noise signal inaccurately representing the near-end noise.

24. (new): The system of claim 21 wherein the noise adaptive gain function has a lower bound, a maximum upper bound, and a gain between the lower bound and the upper bound that is a function of the near-end noise level estimate and the noise sensitivity coefficient.

25. (new): The system of claim 21 further comprises:

an adjustable switch allowing a listener to manually adjust the noise adaptive gain controller to select a noise-to-gain relationship as a matter of personal preference.

26. (new): The system of claim 21 further comprises:

a master gain unit for applying a master gain G_M to the far-end signal, the master gain adjusted by the noise adaptive gain G_N.

27. (new): The system of claim 26 wherein the master gain G_M is adapted to adjust the far-end signal based on the noise adaptive gain G_N and a compressor gain G_C, the compressor gain G_C based on the noise adaptive gain G_N.

28. (new): The system of claim 26 wherein the master gain G_M is adapted to adjust the far-end signal based on the noise adaptive gain G_N, a level-normalizing gain G_A, a maximum gain G_{MAX}, a compressor gain G_C, an expander gain G_E, and a limiter gain G_L according to the function $G_M=\min\{G_N*G_A, G_{MAX}, G_C, G_E, G_L\}$.

29. (new): The system of claim 21 further comprises:

a compressor gain control unit for generating a compression gain that is a function of the noise adaptive gain.

30. (new): The system of claim 29 further comprises:

a limiter for generating a limiter gain that has a range of operation affected by the compression gain at an onset point of the compression gain and the strength of the compression gain generated by the compressor gain control unit.